



A summary of the proposed changes for  
the revised Francis Marion Land and  
Resources Management Plan

# Francis Marion National Forest Plan Revision

Proposed Changes  
September 2014

US Forest Service

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## Overview of the Draft Francis Marion Forest Plan

The Francis Marion draft forest plan is structured differently than the *1996 Revised Land and Resource Management Plan, Francis Marion National Forest* (1996 forest plan). The draft plan consists of four chapters, a glossary and several appendices as follows:

### **Chapter 1 – Introduction**

- Unique Roles and Contributions
- Six Themes/Management Challenges

### **Chapter 2 – Vision and Strategy**

- Desired Conditions
- Management Strategies
- Objectives

### **Chapter 3 – Design Criteria**

- Standards and Guidelines
- Suitability

### **Chapter 4 – Monitoring and Adaptive Management**

- Adaptive management strategy
- Monitoring plan/questions

### *Changed from the existing plan*

1. The 2012 planning rule emphasizes an “all lands approach” and recognizes opportunities extend across boundaries.
2. Climate change direction is incorporated across all sections.
3. Management strategies, which identify key partnerships and how to combine resources with others to achieve desired conditions and objectives, are new. Although optional, our partners tend to gravitate to this conversation.
4. Management prescriptions are no more. Management strategies are new. The strategies describe how we will accomplish the forest plan direction.
5. Geographic areas are new; they frame the landscape to “connect people with nature.”
6. The existing plan focused on the ecology; this plan tends to give equal weight to ecology and social considerations.
7. Monitoring is not a forest plan decision and occurs at a broad scale and at a forest level.

## Chapter 1 Introduction

Chapter 1 describes the purpose and structure of the draft forest plan, provides an overview of the Francis Marion National Forest and details public involvement and the resulting six themes and management challenges.

### *Changed from the existing plan*

Chapter 1 describes six emerging themes that have been developed from public involvement; changes in laws, policies or regulations; or changing conditions, such as increased development or new information.

The following six themes are broad concepts relating to public preferences and forest management needs and will be used while revising the forest plan:

1. Maintain, improve or restore the unique landscapes and features on the Francis Marion;
2. Improve the quality of life and health for forest visitors and the surrounding communities;
3. Respond to challenges;
4. Share operational and planning resources among partners. Keep ongoing collaborative efforts vibrant while continuing to develop new ones;
5. Develop a monitoring strategy that provides information for rapid responses to changing conditions; and
6. Manage resources by integration and coordination.

Chapter 1 also includes a description of the forest's unique roles and contribution, as required by the 2012 planning rule, as well as how the Francis Marion fits into the broader landscape.

## Chapter 2 Vision and Strategy

Chapter 2, the heart of the forest plan, provides management direction in two overlapping layers: ecological sustainability (natural systems) and social sustainability (connecting people to natural systems). Designated and special interest areas are embedded in these two layers.

*Changed from the existing plan or current management direction*

**Ecological sustainability**, which includes ecological integrity and diversity, focuses on maintenance and restoration of 10 ecosystems (eight native terrestrial and two aquatic) and watersheds. Forest plan direction ensures the ecological integrity of these ecosystems (see table on page 2) by considering their structure, function, composition and connectivity.

Per the 2012 planning rule, the draft plan must include the following components to maintain or restore native ecosystems:

1. Key characteristics associated with terrestrial and aquatic ecosystem types;
2. Rare terrestrial and aquatic plant and animal communities;
3. The diversity of native tree species similar to that existing in the plan area.

Plan components for ecological integrity must also take into account:

1. The interdependence of ecosystems;
2. Impacts from and to the broader landscape;
3. System drivers and stressors including climate change;
4. Opportunities to restore fire-adapted ecosystems; and
5. Landscape scale restoration.

### 2.1 Eight Terrestrial Ecosystems

Restoring and maintaining a variety of native ecosystems on suitable sites form the foundation of this plan. Restoration through vegetation management programs will result in improved habitats for a variety of plants and animals, as well as resilience to potential effects from climate change. Ecological restoration may take decades to achieve, as conversion from one system to another is a complex multi-step process.

*Changed from the existing plan or current management direction*



We have worked with district personnel and the conservation community to identify desired conditions and landscapes most suited for ecosystem restoration. To delineate the eight native terrestrial ecosystems, we used the ecological system classification and associated descriptions developed by NatureServe (2012), local and expert knowledge, and relevant biophysical setting descriptions from LANDFIRE and ecological mapping by Simon and Hayden (2014). This work on developing forest components to address

ecosystems includes identifying key characteristics that influence their composition, structure, function and connectivity.

Forest plan direction is the same across the forest for **terrestrial ecosystems that are not fire-adapted**. These ecosystems would be maintained and restored where they occur or occurred historically:

1. Hardwood ecosystems associated with forested wetlands;
2. Oak and mesic slope forests;
3. Maritime forests; and
4. Salt marshes.

Some wetland ecosystems may benefit from restoration due to past modifications; others may function adequately and just need some degree of continued management for their health and function.

**For fire-adapted ecosystems**, forest plan direction would vary with the agency's ability to provide the historic fire return interval. The following two management areas would provide forest plan direction that focuses on restoration and maintenance of ecosystem groups:

- **Management Area 1** would emphasize maintenance and restoration of native fire-adapted ecosystems habitats. The Forest Service is best able to manage smoke and public safety issues associated with prescribed fire in this area.
- **Management Area 2** would address fuels reduction and timber management where frequent prescribed fire is unlikely to be practiced, but where alternative methods for maintaining fire-adapted human communities, fuel reduction and early successional habitat is desired.

**Imbedded designated and special interest areas** would include botanical areas, critical habitat for frosted flatwoods salamander and the Lake Guillard Research Natural Area. Additional direction is needed for the designated critical habitat for frosted flatwoods salamander and the research natural area.

## 2.2 Ecosystems and Species Diversity

The 2012 Planning Rule adopts a complementary coarse filter “ecosystem” and fine-filter “species” approach to ensure the long-term persistence of native species. The coarse-filter “ecosystem” approach assures biological diversity. “Ecosystem” forest plan components provide direction to maintain conditions needed for most plant and animal species. As needed, fine-filter “species” direction contributes to the recovery of T&E species; conserves proposed and candidate species; and maintains a viable population of each species of conservation concern. All of these are collectively called “at risk species.”

### *Changed from the existing plan or current management direction*

The 2012 Planning Rule explicitly acknowledges that there are limits to Forest Service authority and the inherent capability of the land. Plan components recognize that maintenance or restoration of native ecosystems requires coordination with conservation partners and use of the best available scientific information. The body of science that informs land management planning in areas such as conservation biology and ecology has advanced considerably since 1982, along with our



*Photo by Martan Lamertink*

understanding of the values and benefits of National Forest System lands, and the challenges and stressors that may impact them.

Species of conservation concern replace sensitive species under the 2012 Planning Rule. Criteria for consideration have been expanded to include locally rare species (S1 and S2), and only those species known or highly likely to occur on the forest. The proposed list of potential species of conservation concern includes 125 species, including 18 aquatic species, 72 plant species and 35 terrestrial wildlife species. For example:

- Frosted flatwoods salamander (*Ambystoma cingulatum*) has been listed as a federally threatened species and critical habitat has been designated on the Francis Marion.
- Atlantic sturgeon (*Acipenser oxyrinchus*) has been listed as a federally endangered species and occurs in the Santee and Cooper Rivers.
- Bald eagle has been delisted, but is still included as a potential species of conservation concern.
- Woodstork has been down listed from endangered to threatened by the USFWS.
- RCW has recovered from the impacts of Hurricane Hugo.
- The USFWS has been petitioned to list the Southern hognose snake (*Heterodon simus*), Eastern diamondback rattlesnake (*Crotalus adamanteus*), spotted turtle (*Clemmys guttata*), Carolina gopher frog (*Lithobates capito*), monarch butterfly (*Danaus plexippus*) and American eel (*Anguilla rostrata*) under the Endangered Species Act.

## 2.3 Rivers and Streams, Ponds and Riparian Areas

The 2012 Forest Planning Rule requires better direction associated with aquatic ecosystems. The 1996 forest plan lacks objectives to improve aquatic habitat.

### *Changed from the existing plan or current management direction*

The 1996 forest plan did not include a dedicated management area for rivers and streams.

The proposed objectives for the revised plan include:

- Restore riparian areas with hardwood as the restoration component;
- Improve stream habitat and aquatic communities through the use of large wood and aquatic organism passage structures and the removal of structures that impede stream flow.
- Assess streams for effects of past ditching and drainage. Identify opportunities for restoration or improvement relative to stream permanence, floodplain hydration and adjacent riparian and wetland restoration.

Additionally, the revised plan would emphasize recruitment of critical large woody debris in streams whereas the 1996 forest plan allows removal of woody debris from streams.

**Riparian Areas:** The 2012 planning rule establishes new riparian management zones and defines the riparian area. LiDAR data allows for a more adequate representation of the location and abundance of hydrologic features.

## 2.4 Social Sustainability/Recreation Zones

**Social sustainability** focuses on connecting people to nature and the benefits people receive from the forest. The forest plan revision team worked locally with district employees, the Southern Regional Office and the local communities to identify the recreation/social sustainability zones.





The draft plan proposes four social sustainability zones; Coastal, Wando, Wambaw Swamp and Santee. These zones are divided into geographic areas that not only define and focus recreation opportunities in existing settings, but also include social/cultural components and multiple uses. These four zones would help frame the discussion about how the forest is connecting people to nature.

The diverse Coastal Zone would include many of the most developed recreation activities on the forest—a developed campground and visitor center, as well as interpretive and historic sites. The Wando Zone would be established in the southernmost area of the forest and would offer opportunities to connect many people with nature and provide great views, open green space and recreation opportunities. The largest zone, the Wambaw Swamp Zone, would include the most consolidated ownership and the most diverse recreation settings—from roaded natural

settings to the semi-primitive settings of four congressionally designated wilderness areas. The Santee Zone would occur on the northernmost end of the forest and would include non-contiguous ownership which lends this area to more traditional recreation uses such as hunting, fishing, nature/wildlife viewing and scenic driving.

#### *Changed from the existing plan or current management direction*

The 1996 forest plan includes strategic language for recreation and trails; however, conditions have changed since then. The 1996 forest plan objectives were quickly attained. Also, the 1996 forest plan is based on ecological units for management direction (wilderness and special areas are the exception) and recreation direction is difficult to find.

The new proposed plan would focus on outward looking strategies and on partnerships and connecting people with nature, as well as providing sustainable opportunities. These geographic areas would focus sustainable recreation and trail, cultural and wilderness direction into discreet contiguous areas. The zones would be the basis for the landscape character descriptions required in the Scenery Management System updates. There would be improvement in desired conditions for all resources.



Figure 1. Four proposed recreation zones



## 2.5 Potential Wilderness Areas

The 2012 Forest Planning Rule requires the forest to conduct an inventory of potential wilderness areas that may be suitable for recommendation for congressional designation as wilderness study areas. Areas qualify for placement on the potential wilderness *inventory* if they meet the statutory definition of wilderness.

Going forward an *evaluation* of potential wilderness areas that may be suitable for recommendation for congressional designation as wilderness study areas will be available for review mid-September. At that point the XLT should decide at that point if any areas will be brought forward. This evaluation will show current conditions and some tradeoffs of allocating the areas to wilderness study areas.

*Changed from the existing plan or current management direction*

This new inventory alone does not change any management direction for existing wilderness but could potentially lead to additional areas for wilderness study. The process for determining the areas has been refined in the new planning regulations and are still draft.



## Preliminary Results Of Wilderness Inventory

Stand alone areas

Areas adjacent to wilderness

- Area 1 - 5,098 acres including
- Area 2 - 6,443 acres including
- Area 3 - 4,535 acres including
- Area 4 - 2,306 acres including
- Area 5 - 5,747 acres including
- Area 6 - 6,859 acres including

Legend:

- Wilderness areas
- Other, MARSH, LEVEL
- 1. ROAD EXISTENCE (MAIN ROADS)
- 2. ROAD EXISTENCE (BRIDGE)
- 3. ROAD EXISTENCE (SIDEWALK)
- 4. ROAD EXISTENCE (SIDEWALK)
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- 99. ROAD EXISTENCE (SIDEWALK)
- 100. ROAD EXISTENCE (SIDEWALK)

- Area 1 - 5,098 acres
- Area 2 - 6,443 acres
- Area 3 - 4,535 acres (6,660 acres including wilderness)
- Area 4 - 2,306 acres (7,121 acres including wilderness)
- Area 5 - 5,747 acres (7,572 acres including wilderness)
- Area 6 - 6,859 acres (11,906 acres including wilderness)

Areas adjacent  
to wilderness



## 2.6 Eligible Wild and Scenic Rivers

The 2012 Planning Rule requires the forest to conduct an inventory of wild and scenic rivers during the planning process. To be eligible, rivers must be free-flowing and must contain at least one outstandingly remarkable value (ORVs); there is no size criterion. These ORVs were identified regionally significant by Forest Service staff on the Francis Marion National Forest and in the Francis Marion and Sumter National Forests' Supervisor's Office. This eligibility process is documented and on the planning website. Five rivers were found eligible, including:

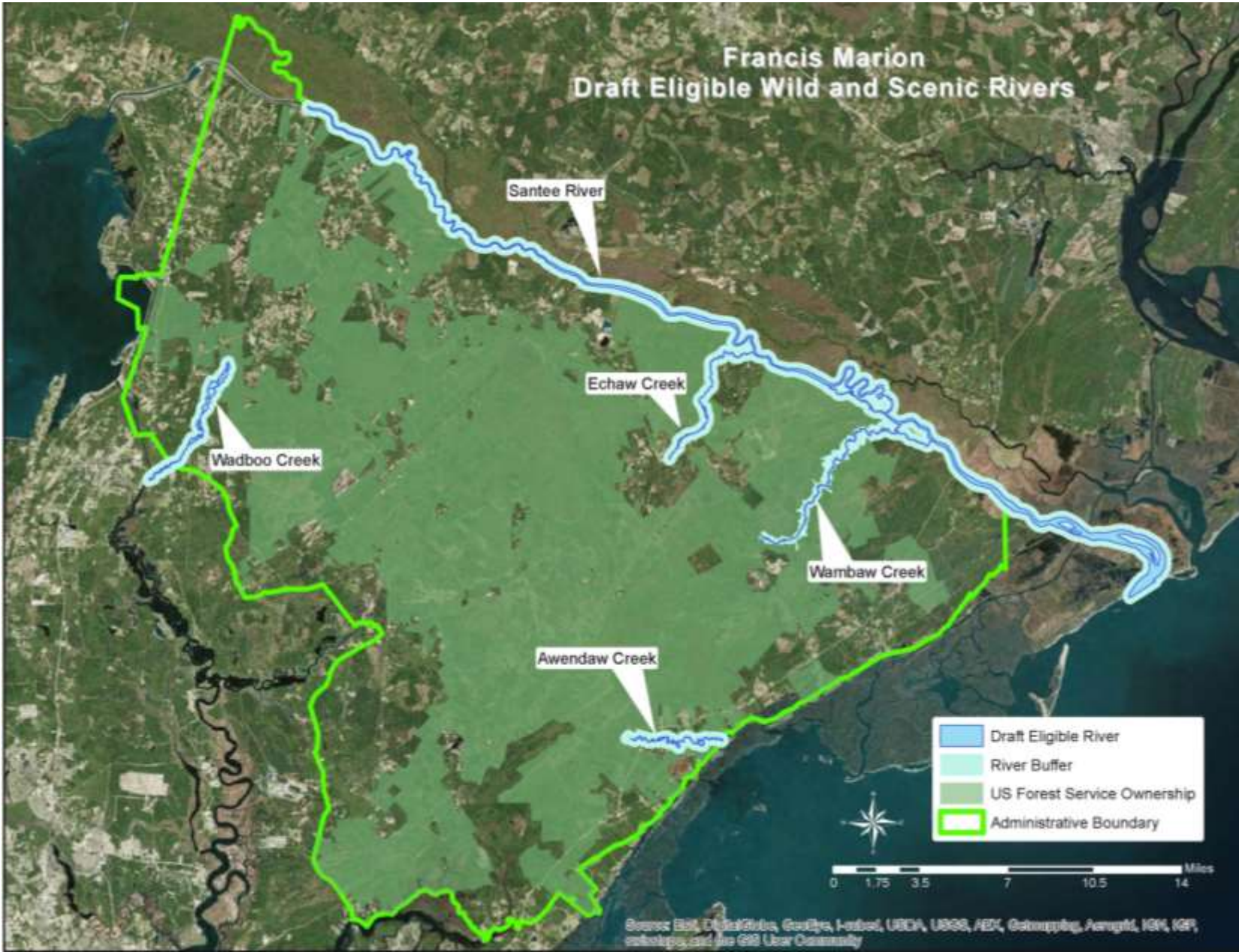


1. Lower Santee River: This entire river would be classified scenic with ecological and cultural ORVs.
2. Wambaw Creek: The Wilderness section of the river would be classified wild, while the segment below Echaw Road to the confluence with the Santee could be classified scenic. Wambaw Creek has ecological, scenic, recreation and cultural ORVs.
3. Echaw Creek: The entire river would be wild with ecological, scenic and recreation ORVs.
4. Wadboo Creek: The entire river would be wild until Highway 402 with ecological, scenic and recreation ORVs.
5. Awendaw Creek: The creek would be classified recreational to reflect higher use and adjacent development. This creek has a recreation ORV associated with its access to a representative coastal tidal forest and marsh environment.

### *Changed from the existing plan or current management direction*

The rivers that are eligible would have direction in the plan that maintains their free-flowing condition and the ORVs of each river. Direction in the plan would consider the ORVs for each river; some rivers may have specific standards for some activities.

Figure 3. Francis Marion Draft Eligible and Scenic Rivers





## 2.7 Access

Emphasis in the 2012 Planning Rule is placed on strategic management, safe travel routes, adequate access to private property and relevant public information available to forest users regarding current road and trail conditions.

*Changed from the existing plan or current management direction*

The revised plan would implement a strategic review of current forest roads and trails to identify any necessary changes in maintenance levels or closure.

## 2.8 Timber Management

Timber volume sold from the Francis Marion National Forest should remain similar to that produced in the past. Desired conditions creating the purpose and need for harvest would shift, focusing especially on ecological restoration.

*Changed from the existing plan or current management direction*

Because Hurricane Hugo had established young stands across the Francis Marion National Forest just before the 1996 forest plan was written, creating new young forest was not a priority for the Forest Service, which limited longleaf pine restoration. Longleaf pine emphasis areas have been remapped to coincide with the parts of the forest that can be maintained with frequent prescribed fire.

The current plan does not emphasize longleaf pine restoration in the flatwoods/wet pine savanna ecosystems; the proposed plan would.

Loblolly pine and timber management would be emphasized more in Management Area 2. The location of this emphasis would be a change from current plan direction.

## 2.9 Planned (Prescribed Fire) and Unplanned (Wildfire) ignitions



Both planned and unplanned fires have played an essential role in maintaining Coastal South Carolina ecosystems for thousands of years. These recurring and frequent fires cleaned out the forest floor and recycled nutrients, while causing little damage to plants and animals and reducing the threat and risk of overstory-killing wildfire. These frequent, low-severity fires enhanced the long leaf pine ecosystem, due to the longleaf pine's ability to not only survive wildfires, but also thrive and regenerate after fire occurrences where other competing vegetation could not.



### *Changed from the existing plan or current management direction*

The 1996 forest plan accurately defined the need for prescribed burning across the forest. New forest plan direction would include an increase in the number of acres burned and the areas where prescribed fire would be implemented, as well as a slight shift in the number of acres burned in the dormant season to the growing season.

The existing plan states, “*Wildfires are actively suppressed in a cost-efficient manner.*” The updated desired condition would state, “*Naturally occurring fire is allowed to operate as close as possible to its historic, ecological role.*” This dramatic shift in plan direction would bring the plan more in line with Federal Wildland Fire Management Policy. Removing the existing objective of active suppression would provide land managers an opportunity to successfully manage fire on the landscape, while considering land management objectives, the Forest Service mission and the Federal Fire Policy.

## **2.10 Community Wildfire Protection Plans**

The Healthy Forests Restoration Act (HFRA) provides communities with a tremendous opportunity to influence where and how federal agencies implement fuel reduction projects on federal lands. A Community Wildfire Protection Plan (CWPP) is the most effective way to take advantage of this opportunity. A CWPP includes a detailed risk assessment using state-of-the-art computer modeling, providing the community with clarity to their wildfire problem and actions it can take to mitigate them.

The CWPP action plan addresses:

- ❖ Wildland Fuel Management;
- ❖ Community Outreach and Education;
- ❖ Firewise Building Retrofit and Landscaping;
- ❖ Policy and Regulation Recommendations; and
- ❖ Wildland Fire Response Improvements.

### *Changed from the existing plan or current management direction*

The existing plan does not address CWPPs. At the local level, successful implementation of fuel treatments must include decision makers collaborating with federal, state and local governments; tribes; community-based groups; landowners; and other interested persons. Collaboration would be used to establish priorities, cooperate on activities and increase public awareness and participation to reduce the risks to communities and surrounding lands. While land-management agencies make the decisions on matters affecting public lands, these collaborative efforts would produce programs that can be supported broadly and implemented successfully. Additionally, communities with a CWPP in place will be given priority for funding of hazardous fuels reduction projects carried out under the auspices of the HFRA.

## **2.11 Hunting and Fishing**

The Francis Marion National Forest is not only home to several native fish and wildlife species, but also provides opportunities for hunting, fishing, wildlife viewing and nature photography. The forest supports viable populations of native species with the assistance of partners such as the U.S. Fish and Wildlife Service, South Carolina Department of Natural Resources, Quail Forever, The Nature Conservancy and The National Wild Turkey Federation.

*Changed from the existing plan or current management direction*

Since Hurricane Hugo and the 1996 forest plan, the Francis Marion National Forest has grown up. Approximately one-third of the forest is even-aged pine forest. The forest needs early-successional habitat to provide a diversity of terrestrial wildlife habitats.

The new plan would place a greater emphasis on managing ecosystems to provide for habitat for wildlife species. Providing connectivity among isolated populations is essential to maintain genetic diversity.

Due to increasing human populations, the increase in road kill of rare amphibians and reptiles has become a big impact on relatively small populations of these animals.



## Chapter 3      Design Criteria

Whereas standards and guidelines restrict management activities in the 1996 forest plan, suitability for timber and minerals would describe where these activities are allowed in the revised management plan.

### *Changed from the existing plan or current management direction*

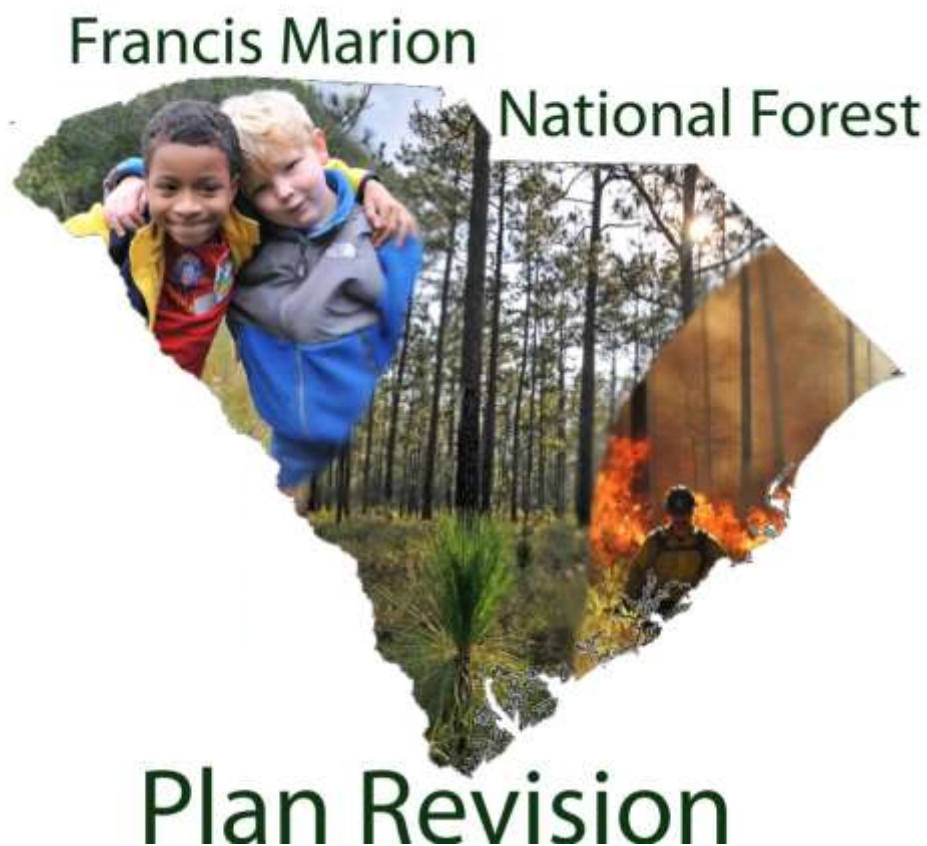
The 1996 forest plan has 155 forest-wide standards and guidelines plus several more that apply to the different management areas; combined these total more than 200 standards and guidelines. The draft forest plan has less than 70 standards and guidelines.

Standards and guidelines are required forest plan components:

1. A standard is a mandatory constraint on project and activity decision making. To deviate from a standard, a forest plan amendment is needed.
2. A guideline is a constraint on project and activity decision making that allows for departure, so long as the purpose of the guideline is met. To deviate from a guideline, a NEPA analysis and project-level decision are needed to make a consistency determination.

To reduce the number of standards and guidelines in the new plan, the forest planning team is:

1. Putting more direction in the desired conditions and management strategies; and
2. Not repeating information that is contained elsewhere, such as manuals, handbooks or laws.



## Chapter 4      Monitoring and Adaptive Management

Monitoring forms the basis for continuous improvement of the plan and information for adaptive management of the plan area. Monitoring in an adaptive management framework facilitates and prioritizes learning to support decisions on whether changes are needed. To develop a monitoring strategy, both plan-level and broad-scale monitoring would be used. Broad-scale monitoring is defined as monitoring conducted by non-Forest Service entities or by Forest Service entities with a regional or national scope.

### *Changed from the existing plan or current management direction*

At a minimum, we would need to respond to the required monitoring items in 36CFR 219.12(a)(5). Many of these would need new monitoring strategies such as focal species and system drivers and stressors including climate change. We are working closely with the Eastern Forest Environmental Threat Assessment Center to develop a robust adaptive management system. Information related to alerts and possibilities for change by monitoring item would help us determine when a change is needed.

### **Required Monitoring Items**

The new plan monitoring program would address the eight monitoring items required under the planning regulations (36CFR 219.12(a)(5)).

- (i) The status of select watershed conditions.
- (ii) The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.
- (iii) The status of focal species to assess the ecological conditions required under § 219.9.
- (iv) The status of a select set of the ecological conditions required under § 219.9 to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
- (v) The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.
- (vi) Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.
- (vii) Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.
- (viii) The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land (16 U.S.C. 1604(g)(3)(C)).